

# SAFETY DATA SHEET

Monopotassium phosphate



## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name:** Monopotassium phosphate**EC number:** 231-913-4

Registration number	Legal entity
01-2119490224-41-0038	-

**CAS number:** 7778-77-0**Other means of identification:** -**Chemical formula:** H<sub>2</sub>O<sub>4</sub>-P.K

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified Uses:** Use in agrochemicals. Wood preservative.

Use of liquid fertilizers: Surface spreading or incorporation through pipes at open field. Fertilization of amenity (parks, public lawns, sport fields, golf courses), greenhouse application, fertigation – Professional use: SU01, PC12; PROC08a, PROC09, PROC11, ERC08a, ERC08e.

Dilution of liquid soluble fertilizers – Professional use: SU01; PC12; PROC05, PROC08a; ERC02. Use of fire extinguisher powder – Professional use: SU0; PC0; PROC03, PROC05, PROC09, PROC26; ERC08a, ERC08d.

Use of additive for the manufacture of ceramic product UCN G15000 – Professional use: SU0 (NACE 23.4), PC0; PROC05, PROC09; ERC09a, ERC08b.

Air care product – Professional use: SU0 (NACE 81.2); PC03; PROC11; ERC08a.

Textiles – Professional use: SU05; PC34; PROC13, ERC08b.

Use as pH-regulators, flocculants, precipitants, neutralization agents – Professional use: PC20; PROC02, PROC03, PROC04, PROC08b; ERC08b, ERC09a.

Use of detergents and maintenance product – Professional use: PC35; PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC19; ERC08a, ERC08d, ERC09a, ERC09b. Use of fire extinguisher powder – Consumer use: PC0 (UCN G15000); ERC08a, ERC08d, ERC09a, ERC09b. Use in cleaning agents – Consumer use: PC35; ERC08a, ERC08d. Use of solid fertilizers: surface spreading at home gardens – Consumer use: PC12, ERC08d.

Dilution and use of liquid fertilizers: surface spreading at home gardens – Consumer use: PC12, ERC08d.

Dilution and use of liquid fertilizers: indoor home – Consumer use: PC12, ERC08a.

### 1.3 Details of the supplier of the safety data sheet

Manufacturer:

Open Joint-Stock Company "The hydrometallurgical plant"

Legal address: Russia, 357340, Lermontov, Stavropolskiy reg. st. Promyshlennaya 7

Postal address: Russia, 357340, Lermontov, Stavropolskiy reg. st. Promyshlennaya 7

Tel: +7 (879-35) 3-76-59

e-mail: contact@gmz.stv.ru

**e-mail address of person****responsible for this SDS:** cert@a-group.com

#### Only representative

REACHLaw Ltd.

Street address

Vänrikinkuja 3 JK 21

Postcode and post office

02600 Espoo, Finland

Telephone

+358(0) 9 412 3055

Email

SDS@reachlaw.fi

Webpage

www.reachlaw.fi

### 1.4 Emergency telephone number

#### Supplier

**Telephone number:** +7 (879-35) 3-76-59 (Mo-Fr, 10-19 h)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Product definition:** Mono-constituent substance**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements****Signal word:** No signal word.**Hazard statements:** No known significant effects or critical hazards.**Precautionary statements****Prevention:** Not applicable.**Response:** Not applicable.**Storage:** Not applicable.**Disposal:** Not applicable.**Hazardous ingredients:** Not applicable.**Supplemental label elements:** Not applicable.**Annex XVII - Restrictions:  
on the manufacture,  
placing on the market and  
use of certain dangerous  
substances, mixtures and  
articles** Not applicable.**2.3 Other hazards****Substance meets the:  
criteria for PBT according  
to Regulation (EC) No.  
1907/2006, Annex XIII** Not applicable.**Substance meets the:  
criteria for vPvB according  
to Regulation (EC) No.  
1907/2006, Annex XIII** Not applicable.**Other hazards which do:  
not result in classification** None known.**SECTION 3: Composition/information on ingredients****3.1 Substances:** Mono-constituent substance

<b>Product/ingredient name</b>	<b>Identifiers</b>	<b>%</b>	<b>Regulation (EC) No. 1272/2008 [CLP]</b>	<b>Type</b>
Potassium dihydrogenorthophosphate	REACH #: 01-2119490224-41-0038 EC: 231-913-4 CAS: 7778-77-0	100	Not classified.	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

**Type**

[A] Constituent

[B] Impurity

[C] Stabilizing additive

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion:** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : No specific fire or explosion hazard.
- Hazardous combustion products** : Decomposition products may include the following materials:  
phosphorus oxides  
Metal oxide/oxides

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- Additional information (Explosibility)** : None.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in «For non-emergency personnel».

**6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and materials for containment and cleaning up

**Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).

**Advice on general: occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

Section 7. Handling and storage: The information in this section contains generic advice and guidance.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

**Occupational monitoring limits** : No exposure limit value known.

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II****Potassium dihydrogenorthophosphate**

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurements strategy) European Standard EN 14042 (Workplace atmospheres – Guidance for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurements of chemical agents) Reference to nation guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
Diammonium hydrogenorthophosphate	DNEL	Long term Inhalation	4.07 mg/m <sup>3</sup>	Workers	Systematic
	DNEL	Long term Inhalation	6.1 mg/m <sup>3</sup>	Consumers	Systematic

**PNECs**

Product/ingredient name	Compartment Detail	Value	Value
Diammonium hydrogenorthophosphate	Sewage Treatment Plant	50 mg/l	Assessment Factors

**8.2 Exposure controls**

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.  
**Recommended:** Wear safety glasses with side protection on accordance with EN 166.

**SECTION 8: Exposure controls/personal protection****Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.  
**Recommended:** Wear suitable gloves tested to EN374.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.  
**Recommended:** Particle filter device (DIN EN 143), Filter type: P2.

**Environmental exposure: controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	:	Solid. [Crystalline powder.]
<b>Color</b>	:	White.
<b>Odor</b>	:	Characteristic.
<b>Odor threshold</b>	:	Not available.
<b>pH</b>	:	Not available.
<b>Melting point/freezing point</b>	:	Not available.
<b>Initial boiling point and boiling range</b>	:	>449.85 °C.
<b>Flash point</b>	:	Not available.
<b>Evaporation rate</b>	:	Not available.
<b>Flammability (solid, gas)</b>	:	Non-flammable.
<b>Upper/lower flammability or explosive limits</b>	:	Not available.
<b>Vapor pressure</b>	:	Not available.
<b>Vapor density</b>	:	Not available.
<b>Relative density</b>	:	2.33
<b>Solubility(ies)</b>	:	Not available.
<b>Solubility in water</b>	:	208 g/l
<b>Partition coefficient: n-octanol/water</b>	:	Not available.
<b>Auto-ignition temperature</b>	:	Not available.
<b>Decomposition temperature</b>	:	Not available.
<b>Viscosity</b>	:	Not available.
<b>Explosive properties</b>	:	None.
<b>Oxidizing properties</b>	:	None.

### 9.2 Other information

**Molecular weight** : 136 g/mole

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	:	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	:	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	:	No specific data.
<b>10.5 Incompatible materials</b>	:	No specific data.
<b>10.6 Hazardous Decomposition products</b>	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Results	Species	Dose	Exposure	Remarks
Potassium dihydrogenorthophosphate	LD50 Dermal [OECD 402]	Rat – Male, Female	> 2000 mg/kg	-	Test substance: CAS no. 14887-42-4 (read-across)
	LC50 Oral	Rat – Male	> 4640 mg/kg	-	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Irritation/Corrosion**

Product/ingredient name	Results	Species	Score	Exposure	Observation	Remarks
Potassium dihydrogenorthophosphate	Skin – Non-irritating to the skin.	Rabbit	-	-	-	-
	Eyes – Non-irritating to the eyes.	Rabbit	-	-	-	-

**Conclusion/Summary**

**Skin** : Based on available data, the classification criteria are not met.

**Eyes** : Based on available data, the classification criteria are not met.

**Sensitization**

Product/ingredient name	Route of exposure	Species	Results	Remarks
Potassium dihydrogenorthophosphate	Skin	Mouse	Non sensitizing [OECD 429]	Test substance: CAS no. 7558-80-7 (read-across)

**Conclusion/Summary**

**Skin** : Based on available data, the classification criteria are not met.

**Mutagenicity**

Product/ingredient name	Test	Experiment	Results	Remarks
Potassium dihydrogenorthophosphate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative	Test substance: CAS no. 10028-24-7 (read-across)
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative	Test substance: CAS no. 7664-38-2 (read-across)

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure	Remarks
Potassium dihydrogenorthophosphate	-	-	-	Rat – Male, Female	Oral: ≥ 1000 mg/kg NOAEL	-	OECD 422 Test substance: CAS no. 7758-11-4 (read-across)

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Teratogenicity**



**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effect from short and long term exposure**

**Short term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Long term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Potential chronic health effects**

Product/ingredient name	Results	Species	Dose	Exposure	Remarks
Potassium dihydrogenorthophosphate	Sub-chronic NOAEL Oral	Dog – Male	322.88 mg/kg	90 days	Test substance: CAS no. 7785-88-8 (read-across)
	Sub-chronic NOAEL Oral	Dog – Female	492.77 mg/kg	90 days	Test substance: CAS no. 7785-88-8 (read-across)

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.



**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Results	Species	Exposure	Remarks
Potassium dihydrogenorthophosphate	Acute EC50 > 100 mg/l [OECD 201]	Algae – Desmodesmus subspicatus	72 hours	Test substance: CAS no. 22763-03-7 (read-across)
	Acute EC50 > 100 mg/l [OECD 202]	Daphnia – Daphnia magna	48 hours	Test substance: CAS no. 22763-03-7 (read-across)
	Acute EC50 > 1000 mg/l [OECD 209]	Micro-organism	3 hours	Test substance: CAS no. 7758-11-4 (read-across)
	Acute LC50 > 100 mg/l [OECD 203]	Fish – Oncorhynchus mykiss	96 hours	Test substance: CAS no. 22763-03-7 (read-across)
	Chronic NOEC > 100 mg/l [OECD 201]	Algae – Desmodesmus subspicatus	72 hours	Test substance: CAS no. 22763-03-7 (read-across)
	Chronic NOEC > 1000 mg/l [OECD 209]	Micro-organism	3 hours	Test substance: CAS no. 7758-11-4 (read-across)

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**12.2 Persistence and degradability**

**Conclusion/Summary** : The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient (Koc)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.  
P: Not available. B: Not available. T: Not available.

**vPvB** : Not applicable.  
vP: Not available. vB: Not available.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance.

**13.1 Waste treatment methods****Product**

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the ECC, specific to the industry and process.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>ADN</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>Label</b>				
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	Marine Pollutant: No	No.

- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not applicable.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorization**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

## Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

*Potassium dihydrogenorthophosphate*

None of the components are listed.

**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### Other EU regulations

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior informed Consent (PIC) (649/2012/EU)

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

### National regulations

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia inventory (AICS)</b>	:	This material is listed or exempted.
<b>Canada</b>	:	This material is listed or exempted.
<b>China</b>	:	This material is listed or exempted.
<b>Europe</b>	:	This material is listed or exempted.
<b>Japan</b>	:	<b>Japan inventory (ENCS):</b> This material is listed or exempted. <b>Japan inventory (ISHL):</b> This material is listed or exempted.
<b>New Zealand</b>	:	This material is listed or exempted.
<b>Philippines</b>	:	This material is listed or exempted.
<b>Republic of Korea</b>	:	This material is listed or exempted.
<b>Taiwan</b>	:	This material is listed or exempted.
<b>Turkey</b>	:	This material is listed or exempted.
<b>United States</b>	:	This material is listed or exempted.

**15.2 Chemical Safety Assessment:** : Not applicable.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms:** ADN = European Provisions concerning the International Carriage of Dangerous

Goods by Inland Waterway  
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Classification	Justification
Not classified.	

**Full text of abbreviated H statements**

Not applicable.

**Full text of classifications [CLP/GHS]**

Not applicable.

**Date of issue/ Date of revision** : 30/11/2018  
**Date of previous issue** : 03/06/2020  
**Version** : 4

**Notice to reader**

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.**

**Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**